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| 10/763,476 | 01/23/2004 | Henry Martin Kyle | 15786-002001 | 7003 |

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| EXAMINER | |
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| AMIN, JWALANT B | |
| ART UNIT | PAPER NUMBER |
| 2628 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| *Office Action Summary* | **Application No.** 10/763,476 | **Applicant(s)** KYLE ET AL. | |
|---|---|---|---|
| | **Examiner** Jwalant Amin | **Art Unit** 2628 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/03/2005*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9-14 and 28-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Autodesk ("Welcome to Autodesk Onsite [Autodesk Onsite Help: authpub]", 2002, pages 1-238).

3. Regarding claims 9 and 28, Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches a computer program product stored on a computer-readable medium (Autodesk Onsite is a computer software program tool for viewing, integrating and presenting maps, chapter: Welcome to Autodesk onsite, pg. 1) operating a computer-implemented method dynamically displaying an area bounded by great circle paths (pg. 22), comprising displaying a two-dimensional representation of three-dimensional geographic data (pg. 22); receiving a user input (click in the map) specifying at least three locations on the two-dimensional representation (the user describes at least two segments, and thus the user indicates at least three points on the map), each location representing a vertex where the vertices together define an area (figure on pg. 22 shows 5 vertices, each vertex representing a location selected by the user); while receiving the user input, dynamically displaying a boundary path between adjacent locations (as the user moves the cursor after selecting the first point, the first

segment and it's distance is displayed by Autodesk Onsite, pg. 18), where each boundary path (segments) represents a great circle path (Great Circle Arc, pg. 18, figure on pg. 22) between the adjacent locations (figure on pg. 22) and where the boundary paths together enclose an area (figure on pg. 22 shows an area enclosed by 5 segments comprising 5 different vertices).

4. Regarding claims 10 and 29, Autodesk teaches displaying a value of a three-dimensional area represented by the enclosed area on the two-dimensional representation (figure on pg. 22).

5. Regarding claims 11 and 30, Autodesk (pgs. 17-25) teaches receiving a user input specifying a modification to at least one of the locations (adjust any path by dragging the square grip on either side of the path that describes the area); dynamically displaying one or more modified boundary paths based on the modification to the at least one location (the changes to the boundary path being adjusted is displayed dynamically); and dynamically displaying a modified value of a three-dimensional area represented by a modified enclosed area on the two-dimensional representation (the measurements are updated as you drag the grip and are displayed dynamically).

6. Regarding claims 12 and 31, Autodesk teaches to dynamically display the modified great circle distance corresponding to a modified cumulative distance of the boundary paths between adjacent locations (pg. 18, pg. 25; Autodesk displays the distance of each and the total distance of all the segments described by the user; the measurements are updated as the user drags the grip representing a location to make adjustments along a path or area).

7. Regarding claims 13 and 32, Autodesk teaches to display the great circle distance corresponding to a cumulative distance of the boundary paths between adjacent locations (pg. 18, pg. 22; Autodesk displays the distance of each and the total distance of all the segments described by the user).

8. Regarding claims 14 and 33, Autodesk teaches displaying a boundary path between at least two of the locations (Marking Up and Measuring Your Maps, pg. 19, Alaska and Russia), comprising displaying a first portion of the path, the first portion extending from the initial location (Alaska) to an outer boundary of the two-dimensional representation (the curved lines extending from Alaska to the end of the map); displaying a second portion of the path, the second portion extending from an outer boundary of the two-dimensional representation to an adjacent, second location (the curved lines extending from the other end of the map to Russia); displaying a graphical element (dotted line with solid, curved arrows appearing at each end of the map) linking the first portion of the boundary path to the second portion of the boundary path, wherein the first portion and the second portion together comprise the great circle path between the initial location and the final location (pg. 18-19; the shorter distance between Alaska and Russia from west to east; line depicting traveling west from Alaska will reach the end of the two-dimensional map, and it re-emerges at the east point of the map in Russia).

## *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-4, 6-8, 20-23, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gary Nicholson ("Gazza's Interactive Maps", (http://www.gazza.co.nz/interactivemaps/index.html; hereinafter referred to as Nicholson), and further in view of ChooseClimate.org (http://www.chooseclimate.org/flying/mapcalc.html; hereinafter referred to as ChooseClimate).

11. Regarding claims 1 and 20, Nicholson teaches a computer program product (gazza's interactive maps web site is inherently a program code written in some web scripting language) stored on a computer-readable medium (web program is inherently stored on a server or web-server) operating a computer-implemented method for displaying a path between at least two geographic locations (graphical method of selecting points and then viewing path of the great circle between the two points, pg. 1), comprising display a two-dimensional representation of three-dimensional geographic data (maps of the world, pg. 6); receiving a user-input specifying an initial location on the two-dimensional representation (Honolulu is selected as the start point by the user, pg. 3; Honolulu, pg. 9); receiving additional user input specifying a plurality of

intermediate locations (the user selects San Francisco, Charleston, Dublin, Port of Spain as intermediate locations as shown on pgs. 10-13) and terminating with a final location (Honolulu is selected again as the final location, pg. 13); and while receiving the additional user input, displaying a great circle path extending from the initial location toward each of the plurality of intermediate locations and terminating at the final location (pg. 1, pg. 13; the arcs linking different cities are the great circle paths representing the shortest distance between those cities).

Although Nicholson teaches the claimed limitations as stated above, Nicholson does not explicitly teach to dynamically display the great circle path. However, ChooseClimate teaches to dynamically display a great circle path and calculate the great circle distance between two selected locations (pgs. 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically displaying the great circle path and calculating it's distance could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

12. Regarding claims 2 and 21, Nicholson teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-

4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (once the user has selected the first position, the user drags the mouse to another position that he may want to select and clicks the mouse to select that position, pg. 3-4 and 9-12).

13. Regarding claims 3 and 22, Nicholson teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (the user selects a position on the map by clicking on the mouse and thus inputs the cursor latitude and longitude of the cursor position to mark the position, pg. 3-4 and 9-12); and receiving additional user input specifying a plurality of intermediate locations comprises receiving input corresponding to a user positioning the cursor over the final location on the two-dimensional representation and inputting a second cursor position (once the user has selected the first position, the user moves the mouse to another position that he may want to select, and after positioning the mouse over the desired location, the user clicks the mouse to select the second position, pg. 3-4 and 9-12).

14. Regarding claim 4 and 23, Nicholson teaches to display the great circle distance corresponding to the great circle path (pgs. 1 and 9-13; maps on pgs. 9-13 shows a great circle path between different cities and the great circle distance between the two cities), including updating the great circle distance based on the additional user input

while receiving the additional user input (pg. 9-13 shows that additional cities are added by the user using a mouse click, and the great circle distances are calculated between those cities).

Although Nicholson teaches the claimed limitations as stated above, Nicholson does not explicitly teach to dynamically update the great circle distance. However, ChooseClimate teaches to dynamically display a great circle path and update the great circle distance between any two selected locations (pgs. 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to dynamically display data on the web-site as taught by ChooseClimate and use such functionality into the interactive maps of Nicholson because dynamically calculating and updating the great circle distance between the selected points could eliminate the need to click on the "View Journey" button on Nicholson's interactive maps, and thus giving a faster interactive display by reducing the required processing time.

15. Regarding claims 6 and 25, Nicholson teaches receiving additional user input specifying at least one additional final location on the two-dimensional representation (as shown in the map on pg. 13, Honolulu is the additional final location, and Port of Spain is the final location); and while receiving the additional user input, displaying a second path extending from a final location toward the additional final location (the great circle path between Port of Spain and Honolulu), the second path terminating at the additional final location upon completion of receipt of the additional user input (the great circle path between Port of Spain and Honolulu ends at Honolulu when no further additional user input is received) and the second path representing a great circle path

between the final location and the additional final location. For details regarding the rejection of dynamically displaying the second path representing a great circle path, please refer to the rejection of claims 1 and 20.

16. Regarding claims 7 and 26, Nicholson teaches displaying a great circle distance being the sum of a great circle distance corresponding to the great circle path between the initial location and the final location and the great circle distance corresponding to the second path between the final location and the additional final location (maps on pgs. 9-13 displays the great circle distance corresponding to the great circle path; the first text box under "Distance" gives the distance between the start point and the next point, the second text box gives the distance between the start point and the current position on way to the next point, and the third box is the total distance traveled from the initial start point to the current point; pg. 17 displays the total great circle distance (20610.756 km) between the initial point Honolulu and the final point Port of Spain; pg. 13 displays the total great circle distance (30828.954 km) between the final point Port of Spain and the additional final point Honolulu, which is the sum (30828.954 km) of the great circle distance (20610.756 km) between initial point (Honolulu) and the final point (Port of Spain) via intermediate points (20610.756), and the great circle distance (10218.198 km) between the final point (Port of Spain) and the additional final point (Honolulu)).

17. Regarding claims 8 and 27, Nicholson teaches displaying a great circle path extending from the initial location (pgs. 18-20, San Francisco) toward each of the plurality of intermediate locations (Honolulu, point 2) and terminating at the final location

(Bergen), comprises displaying a first portion of the path, the first portion extending from the initial location to an outer boundary of the two-dimensional representation (the great circle path originating from San Francisco to Honolulu, and from Honolulu to point 2, extends to the outer boundary of the map as shown in maps on pgs 18-20; the arc from San Francisco to the outer boundary of the map via Honolulu and point 2 is represented by solid lines/curves as shown on pg. 2); displaying a second portion of the path, the second portion extending from an outer boundary of the two-dimensional representation to the final location (as shown in maps on pgs. 18-20, the great circle arc that extends from point 2 to the outer boundary of the map, re-emerges again at another position on the boundary of the map and extends to the final location Bergen is represented as solid lines/curves); displaying a graphical element (dotted lines/curves as shown on the map on pg. 20) linking the first portion of the path to the second portion of the path, wherein the first portion and the second portion together comprise the great circle path between the initial location and the final location (the dotted lines/curves on the map connects first portion of the path and the second portion of the path, and thus connecting the initial location San Francisco with the final location Bergen).

18. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson, and in view of ChooseClimate, and further in view of Autodesk.

19. Regarding claims 5 and 24, the combination of Nicholson and ChooseClimate teaches to dynamically update data based on additional user input while receiving the additional user input (see the rejection of claims 1 and 24 for further details). Although

the combination of Nicholson and ChooseClimate teach the limitations as stated above, they do not explicitly teach to display an initial direction corresponding to the great circle path, and updating the initial direction based on the additional user input while receiving the additional user input. However, Autodesk teaches to display the direction between two points while measuring the distance between those two points (see the chapter on Marking Up and Measuring Your Maps, pg. 19 3rd paragraph, pg. 20-21; the direction displayed is based on the start of the great circle between the two points corresponds to displaying an initial direction corresponding to the great circle path; the direction is measured and displayed while calculating the distance between the first point and the second point, and when the third point is selected Autodesk calculates the distance between the second point and the third point and displays the updated direction of the great circle path). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to display the direction corresponding to the great circle path as taught by Autodesk and apply this functionality into the method of Nicholson and ChooseClimate because displaying the direction for geographical measurements between the two points show the relation between those points (Marking Up and Measuring Your Maps, pg. 19 3rd paragraph).

20. Claims 15-19 and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Autodesk, and further in view of Map Projections (http://erg.usgs.gov/isb/pubs/MapProjections/projections.html, pgs. 1-26, April 2003; hereinafter referred to as MapProjections).

21. Regarding claims 15 and 34, Autodesk (chapter: Marking Up and Measuring Your Maps, pgs 1-25) teaches a computer program product stored on a computer-readable medium (Autodesk Onsite is a computer software program tool for viewing, integrating and presenting maps, chapter: Welcome to Autodesk onsite, pg. 1) operating a computer-implemented method for dynamically displaying a path between at least two geographic locations (pg. 18, the bottom figure shows a path between Houston and Caracas, the two geographic locations), comprising displaying a two-dimensional representation (maps on pg. 18) of three-dimensional geographic data; receiving a user input specifying an initial location on the two-dimensional representation (pg. 19 last line; clicking anywhere on the map specifies the initial point); receiving additional user input specifying a plurality of intermediate locations terminating with a final location (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location); and dynamically displaying a path extending from the initial location toward each of the plurality of intermediate locations and ultimately terminating at the final location (pg. 16, 18, 20, 24-25; figure on pg. 20 shows the segments of the path as they are described by the user; this segments of the path are described in real-time as the user drags the mouse; figure on pg. 20 shows the segments of the path from initial point to the end point, distances of which are measured in paper measurements, as straight lines).

Although Autodesk teaches the claimed limitations as stated above, and teaches to display the path on the map as straight lines, Autodesk does not explicitly teach that the path of constant direction could be displayed as straight lines. However, MapProjections teach that any straight line on the map is line of constant direction (pg. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the line of constant direction as a straight line on the map as taught by MapProjections and apply it into the tool of Autodesk because representing straight lines on the map as the line of constant direction is useful for navigation (pg. 3).

22. Regarding claims 16 and 35, Autodesk (pgs. 18-20) teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (pg. 19; clicking on the map specifies the initial location; the user has to position the cursor over a point on the map, and the user then clicks on the desired point on the map); and receiving additional user input specifying a plurality of intermediate locations (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location) comprises receiving input corresponding to a user dragging the cursor on the two-dimensional representation from the first cursor position to a position over the final location (when the mouse is moved, the user has to drag the mouse from one location to another; the

user holds the mouse at the desired location of the initial point and drags the cursor to the final location, pg. 18).

23. Regarding claim 17 and 36, Autodesk (pgs. 18-20) teaches receiving a user input specifying the initial location comprises receiving input corresponding to a user positioning a cursor over the initial location on the two-dimensional representation and inputting a first cursor position (pg. 19; clicking on the map specifies the initial location; the user has to position the cursor over a point on the map, and the user then clicks on the desired point on the map); and receiving additional user input specifying a plurality of intermediate locations (pg. 20; the first segment consists of the initial point and the second point, and a second segment consist the second point as it's start point and a third point, which is obtained by moving the cursor; second point and third point corresponds to intermediate locations; when the last segment of the path is described by clicking on a point, that point is considered as the final location) comprises a receiving input corresponding to a user positioning the cursor over the final location on the two-dimensional representation and inputting a second cursor position (after selecting the initial point, the user moves the mouse to a second point and then clicks at that point to input it's position, the user then moves the mouse to a third point and then clicks at the third point to input it's position, and repeats the steps for all the other intermediate points and the final point on the path, pg. 20).

24. Regarding claims 18 and 37, Autodesk teaches displaying a distance corresponding to the distance of the path of constant direction (pg. 20, total distance), including dynamically updating (total distance is updated as the user makes changes to

the path, pg. 20 and pg. 25) the distance based on the additional user input while receiving the additional user input (the user making changes to the segments in the path corresponds to additional user input; the measurements of the distance of the path is updated as the user makes changes to one of it's segments, pg. 20 and pg. 25).

25. Regarding claims 19 and 38, Autodesk teaches displaying a direction of the path of constant direction (pg. 18, pgs. 20-21; direction displayed by the top figure on pg. 18 displays the direction of the path of constant direction).

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jwalant Amin whose telephone number is 571-272-2455. The examiner can normally be reached on 9:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*** J.A. 12/28/06

WESNER SAJOUS
Primary Examiner
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